

Application No. 09/941,816
Amendment dated March 21, 2005
Reply to Office Action of September 22, 2004

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) An image processing apparatus comprising:
a synthesizer for generating a blur controlled image with an adjusted [[blur]] amount of blur from multiple images having different focal lengths;
an image processor for performing a process other than blur control on the blur-controlled image generated by the synthesizer; and
a changer for changing a degree of the process other than blur control in accordance with the amount of blur.
2. (Original) The image processing apparatus according to claim 1, wherein said image processor is an image compressor, and said changer changes an image compression ratio by the image compressor in accordance with the amount of blur.
3. (Original) The image processing apparatus according to claim 2, wherein said changer changes the image compression ratio such that the image compression ratio increases as the amount of blur increases.
4. (Original) The image processing apparatus according to claim 1, wherein said image processor is a coring processor, and said changer changes frequency components to be removed by the coring processor in accordance with the amount of blur.
5. (Currently Amended) The image processing apparatus according to claim 4, wherein said changer changes frequency components such that [[the]]a value of the removed frequency components becomes smaller as the amount of blur increases.

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6. (Currently Amended) The image processing apparatus according to claim 1, wherein said image processor is [[a]] an aperture controller, and said changer changes an amplification ratio by the aperture controller in accordance with the amount of blur.

7. (Original) The image processing apparatus according to claim 6, wherein said changer changes the amplification ratio such that the amplification ratio increases as the amount of blur increases.

8. (Original) The image processing apparatus according to claim 1, wherein said image processor is a gamma corrector, and said changer changes a value of the gamma correction by the gamma corrector in accordance with the amount of blur.

9. (Currently Amended) An image sensing device comprising:
an image sensor for capturing multiple images having different focal lengths;
a synthesizer for generating a blur controlled image with an adjusted [[blur]] amount of blur from multiple images captured by the image sensor;
an image processor for performing a process other than blur control on the blur-controlled image generated by the synthesizer; and
a changer for changing a degree of the process other than blur control in accordance with the amount of blur.

10. (Original) The image sensing device according to claim 9, wherein said image processor is an image compressor, and said changer changes an image compression ratio by the image compressor in accordance with the amount of blur.

11. (Original) The image sensing device according to claim 10, wherein said changer changes the image compression ratio such that the image compression ratio increases as the amount of blur increases.

12. (Original) The image sensing device according to claim 9, wherein said image processor is a coring processor, and said changer changes frequency components to be removed by the coring processor in accordance with the amount of blur.

13. (Currently Amended) The image sensing device according to claim 12, wherein said changer changes frequency components such that [[the]]a value of the removed frequency components becomes smaller as the amount of blur increases.

14. (Currently Amended) The image sensing device according to claim 9, wherein said image processor is [[a]]an aperture controller, and said changer changes an amplification ratio by the aperture controller in accordance with the amount of blur.

15. (Original) The image sensing device according to claim 14, wherein said changer changes the amplification ratio such that the amplification ratio increases as the amount of blur increases.

16. (Original) The image sensing device according to claim 9, wherein said image processor is a gamma corrector, and said changer changes a value of the gamma correction by the gamma corrector in accordance with the amount of blur.

17. (New) An image processing apparatus comprising:
a synthesizer for generating a blur controlled image with an adjusted amount of blur from multiple images having different focal lengths;
an aperture controller for performing aperture control, the aperture controller including:

a first splitter for bifurcating the blur controlled image into first and second blur controlled images;
a lowpass filter for lowpass filtering the first blur controlled image;
a second splitter for bifurcating the thus lowpass filtered first blur controlled image into first and second lowpass filtered blur controlled images;
a subtractor for subtracting the first lowpass filtered blur controlled image

from the second blur controlled image, thereby creating a high frequency blur controlled image;

 a coring processor for removing frequency components from the high frequency blur controlled image, thereby creating a cored blur controlled image;

 an amplifier for amplifying the cored blur controlled image; and

 an adder for combining the second lowpass filtered blur controlled image and the thus amplified cored blur controlled image; and

 a changer for changing the frequency components removed by the coring processor such that a value of the removed frequency components becomes smaller as the amount of blur increases, the changer also for changing an amplification ratio of the amplifier in accordance with the amount of blur.

18. (New) An image sensing device comprising:

 an image sensor for capturing multiple images having different focal lengths;

 a synthesizer for generating a blur controlled image with an adjusted amount of blur from multiple images captured by the image sensor;

 an aperture controller for performing aperture control, the aperture controller including:

 a first splitter for bifurcating the blur controlled image into first and second blur controlled images;

 a lowpass filter for lowpass filtering the first blur controlled image;

 a second splitter for bifurcating the thus lowpass filtered first blur controlled image into first and second lowpass filtered blur controlled images;

 a subtractor for subtracting the first lowpass filtered blur controlled image from the second blur controlled image, thereby creating a high frequency blur controlled image;

 a coring processor for removing frequency components from the high frequency blur controlled image, thereby creating a cored blur controlled image;

 an amplifier for amplifying the cored blur controlled image; and

 an adder for combining the second lowpass filtered blur controlled image

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and the thus amplified cored blur controlled image; and
a changer for changing the frequency components removed by the coring processor
such that a value of the removed frequency components becomes smaller as the amount of
blur increases, the changer also for changing an amplification ratio of the amplifier in
accordance with the amount of blur.